CHECKLIST ENVIRONMENTAL ASSESSMENT

COMPANY NAME: Decker Coal Company Project: Application #00175 Addition of Mine Cuts 17-25
OPERATING PERMIT #: 87001C
LOCATION: T8S, R40E Sec. 34 W1/2; SW1/4 NE1/4 and T9S R40E Sec. 3 N1/2 NW1/4
City/Town: Decker
County: Big Horn
PROPERTY OWNERSHIP (surface): [x] Federal [x] State [x] Private

TYPE AND PURPOSE OF ACTION:

Decker Coal Company submitted application #00175 as major revision to add pastureland as a post-mine land use, and to mine the remainder of Pit 16 East, adding cuts 17-25 approximately 115 acres of additional pit disturbance. This action will add approximately 165.5 acres of total surface disturbance within the current approved SMP 87001C covering 7356.8 acres (See Decker General Map). The proposed actions will neither increase nor decrease the permitted acreage.

Decker Coal is requesting pastureland as an additional type of post-mine land use. The majority of the currently designated land uses, rangeland and wildlife habitat, will remain as they are. Total acreage of pastureland proposed is not planned to exceed pre-mine levels. Departmental approval must be obtained if the acreage exceeds the pre-mine levels.

Portions of federal coal leases 061685 and 057934-A, previously obtained by Decker Coal, were not included in the original mine plan. This submittal would result in the complete mining of Pit 16 East and the additional portions of the above leases, adding approximately 3,565,156 tons of recoverable coal.

Reclamation Plan:

N = Not present or No Impact will occur.
Y = Impacts may occur (explain under Potential Impacts).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[Y] Soils within the mine passes are stable, non-erosive, and previously disturbed for cultivation. Soils will be tested for suitability parameters of pH, electrical conductivity (EC), sodium adsorption ratio (SAR), organic matter (OM), saturation percentage, and texture prior to salvage. Decker Coal will submit the test results to the Department for verification of suitability and salvage depths. The soil resource will be salvaged in two lifts. The first lift of soil material ("A" lift), containing A and some B soils, includes the topsoil up to 12-inches in depth; however, typically the first lift will consist of the top six inches of the soil resource. The second lift of soil material ("B" lift), containing B and C soils, may include material down to approximately 70 inches. The "A" and "B" lift soils will be distributed on regraded spoils where the postmining topography (PMT) has been met. If there are not regraded spoils available, surplus "A" and "B" lift soil will be stockpiled separately in designated stockpile areas. Each stockpile will be marked with a sign identifying the soil type, and soil stockpiles will be protected from wind and water erosion. Decker Coal will regrade spoils to the approved PMT following mining. The regraded spoils will be tested for suitability parameters of pH, EC, SAR, OM, saturation percentage, and texture prior to soil laydown. The test results will be submitted to the Department for verification. Once the PMT is achieved and the spoils are determined suitable, the "B" lift soil followed by the "A" lift soil will be redistributed. The depth of redistributed soil is designated by the target vegetation type as described in section 17.24.313 Reclamation Plan of Decker

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	Coal's permit #87001C. Following redistribution, an appropriate seed mix will be applied during the next suitable planting period. Any areas where the soil appears unproductive will be evaluated and treatment will be implemented.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[Y] Surface Water: The Tongue River is a perennial stream that separates the East Decker from West Decker mines. Sediment ponds located at East and West Decker discharge into the Tongue River (Figure 1). The average flow for the Tongue River at the U.S.G.S. gauging station located about 1.4 miles upstream of the Decker mines is about 334,200 ac-ft/years. The major revision application (00175) is to allow additional mining in the northeast area of the West Decker mine. The additional mine cuts in the northeast portion of West Decker will continue to intersect Spring Creek. Other major drainages in the West Decker mine include the South Fork of Spring Creek (SFSC), Pearson Creek, Pond Creek and what is referred to as the South Drainage. Mining currently impacts all of these ephemeral drainages. Runoff is either captured by upslope ponds or dams, or allowed to flow into mine pits before being routed to and discharged from sediment ponds. All surface runoff eventually either flows to the Tongue River or is used for dust control. Located upstream of West Decker is the Spring Creek Coal mine which has two upstream flood control dams, one located on Spring Creek and one on the SFSC. Surface runoff at the Spring Creek mine is either diverted around areas of disturbance, directed into sediment ponds, which in turn discharge into the SFSC or Spring Creek, or is contained by two flood control dams. The flood control dams are located upstream of disturbance areas on the SFSC and Spring Creek drainages. A significant portion of runoff directed into sediment ponds is used for dust control. Any runoff directed into the SFSC and Spring Creek drainages are contained downstream by two flood control dams located in the northwestern portion of West Decker, to the extent it reaches those structures. Monitoring of ephemeral stream flow is on-going. The location of monitoring sites is shown on Figure 1. The combined average volume of water discharged into the Tongue River at West Decker by ephemeral drainages is about 118.8 ac-ft/year if unrestricted. The total reduction of flow from East and West Decker is about 148.4 ac-ft/year, which is about 0.04% of the average annual flow of the Tongue River. Except for water lost to evaporation and infiltration, consumed by wildlife and livestock, and used for dust suppression efforts, all water pumped into sediment ponds at East and West Decker is eventually discharged into the Tongue River. Only runoff held by the flood control structures is limited from eventually flowing to the Tongue River. Various drainage basins at West Decker were previously approved to be altered from their premine condition, some to a much greater extent than others. Past approvals of major revisions at West Decker shifted the junction of SFSC and Spring Creek eastwards, increasing the SFSC watershed and decreasing the Spring Creek watershed. The changes were relatively small and all drainages outlet to the Tongue River. The current major revision request only affects a small area in the Spring Creek watershed and most of what is referred to as Harry's Hay Meadow. The increased watershed acreage of Harry's Hay Meadow is due to the watershed boundary being adjusted northwestwards, to include what had previously been a part of the Spring Creek watershed. Since both Spring Creek and Harry's Hay Meadow outlet to the Tongue River, no significant impacts are expected.

Geomorphic characteristics of drainage basins include drainage density, slope and stream length. Of these, the most important factor controlling erosion may be drainage density.

The drainage density at West Decker will increase overall from the premine state. With approval of Application 00175 the drainage density of SFSC, Spring Creek and Harry's Hay Meadow will decrease; however, after reclamation, Harry's Hay Meadow will retain a greater drainage density than found in the premine condition. The decrease in drainage density for SFSC and Spring Creek should not have a significant impact on erosion and mine operators routinely create additional features, such as snow catchment features and swales that will collect and convey overland flow to ephemeral drainages during the reclamation process.

Water quality data have been collected from numerous surface water sources at and around the Decker mines. Surface runoff and discharges from sediment ponds have been sampled and analyzed for a host of parameters and reported in the Annual Hydrology Reports. Due to the relatively minor amount of water discharged from the Decker mines in relation to the flow of the Tongue River (a predicted maximum of 0.04% of total flow), downstream impacts from changes in water quality are expected to be insignificant. Additionally, since the proposed major revision adds a relatively small amount of acreage to be disturbed, expected impacts to water quality would remain much the same as is currently found.

Surface water quality impacts from on-going mining have been minimal. Discharges from sediment ponds at West Decker exhibit overall elevated values for alkalinity, specific conductivity, SAR and total dissolved solids (TDS) compared to the Tongue River. This is likely due to the chemical composition of the spoil material. Once disturbed areas have been reclaimed, sediment pond discharges can be expected to return to native background levels, as already evidenced by the reclaimed monitoring site located at West Decker.

After the quality of water from reclaimed areas meets effluent standards, the sediment ponds will be removed. However, runoff will be impounded until discharges can meet MPDES standards.

Surface water at the West Decker mine has been or is currently used by livestock and wildlife. A portion of the available surface water, taken from sediment ponds, is used for dust control. Water quality and quantity impacts to the Tongue River from surface runoff should be insignificant. Previous land uses should return once mining and reclamation are complete.

Ground water: Prehistoric burning of in situ coal removed most of the D1 coal and part of the D2 coal in Pit 16. Both of these coal seams are aquifers in the West Decker Mine and are the target of coal recovery at the mine. During burning, the highly porous, low-temperature metamorphic rock known as "clinker" was created from baking of the fine-grained, sedimentary overburden. Clinker is extensive in the Pit 16 area.

Ground water monitoring in the Pit 16 area began in 1972 with monitoring wells completed in alluvium, D1 coal, D1 burn/clinker, D2 coal, and D3 coal. Despite the extensive burn, the D1 and D2 coal aquifers locally remained confined with a pressure head of five to 20 feet, respectively. The (unmined)

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	D3 coal was confined, with a pressure head of more than 160 feet. Due to the high porosity of clinker, it contained little to no water. Mining in Pit 16, to date, has resulted in dewatering of clinker, D1 (where present) and D2 coal in the pit area and has contributed somewhat to a decline in water levels beyond the pit. The deeper and undisturbed D3 coal has shown a decline of approximately 30 feet, which is probably mostly attributable to coal bed methane development that began in late 1999, southwest of the West Decker Mine permit. During gas production, large quantities of ground water, including the D3 aquifer, are pumped to reduce pressure head. Recharge to the backfilled (spoil) pit is anticipated to form a water table aquifer to replace the D1 and D2 coal aquifers. A single spoil monitoring well in Pit 16, installed in 2001, has shown a water level increase of 5 feet. Significant recovery of water levels in Pit 16 is not anticipated until mining and reclamation are complete. Much of the recharge will come from the Tongue River Reservoir, which is hydraulically connected to the pit. Ground water is currently pumped from active pits to sediment ponds for eventual discharge to the reservoir or use in dust suppression on mine roads. Recharge will also come from upgradient lateral ground water flow to the west once final upgradient pits are reclaimed. If application 00175 were approved, the extent of dewatering and the spoil aquifer would be increased. An increase in the extent of the spoil aquifer also would mean an increase in the area of impacted water quality due to additional dissolved solids. Typically, total dissolved solids (TDS) concentration in spoil water increases two to two and a half times that of pre-mine ground water. A D2 well in Pit 16 has an average TDS concentration of approximately 1500 mg/L. Increased extent of dewatering and water quality impacts would not be significantly increased above those anticipated with currently approved mining. The proximity of the Tongue River Reservoir would allow quick recharge and dilution of dissolved solids with seasonal flushing of the spoil aquifer. In anticipation of approval of the application, a dike of compacted clay material has been constructed between the proposed final mine pass and the reservoir to stem inflows from the reservoir into Pit 16 during mining. Decker Coal Company has committed to removing sections of the dike or the entire dike, as necessary, to restore the post-mine hydrologic balance. No impacts are anticipated to the water supply of private landowners or uses downgradient of the pit.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[Y] Decker coal obtained an air quality permit in1980. The permit has been updated as required with the most recent Air Quality Permit (1435-04) issued April 16, 2005. Big Horn County is designated as unclassifiable/attainment for the National Ambient Air Quality Standards and Montana Ambient Air Quality Standards. The current permit action does not result in any increase in actual or potential emissions from Decker operations; therefore, the current permit action will not result in additional ambient air quality impacts.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[Y] The majority of the area was previously disturbed when the native vegetation was converted to pastureland. Some areas of grassland and grass-shrubland are found adjacent to the pastureland. Vegetation availability to livestock and wildlife will be reduced following soil salvage through mining and until the reclaimed vegetation becomes well established. The proposed action

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	adds pastureland as an approved post-mine land use. Pastureland was present within both the area covered by the major revision and the remaining permit area; thus, it would be appropriate to include it as a post-mine land use. Pastureland would provide seasonal forage for livestock and wildlife. Cover of limited value would also be provided to wildlife. No threatened plants or vascular species of concern are known to inhabit the project area.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[Y] The project area contains habitats that would be considered of minimal value to wildlife inhabiting the West Decker area. Limited forage and cover value is provided by the pastureland which occupies the majority of the area. Limited use by landbirds, upland game birds, raptors, small mammals, big game, and herptile species has been observed within the project area and in similar habitats in the West Decker area. The proposed mining and reclamation schedules reduce the overall impacts to wildlife by providing a shorter period for overall disturbance of the area.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[Y] Bald eagles, a species listed as threatened, is observed yearlong traveling through or foraging within the area. Numerous species of special concern have been documented within the area of the Decker Mine; however, no observations have been documented within the proposed mine expansion. It is anticipated that minimal, if any, impacts to species of special concern will result from the proposed additional mining.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] The area of concern was inventoried at the Class II level by Murray (Kiewit) in 1973 and at the Class III level by Fredlund (MRC) in 1975 and 1977. No eligible archeological, cultural or historic sites were identified. No sites requiring further work are in the area. Most of the area has already been converted from native vegetation to pastureland. There are no known special paleontological resources in the area.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] While the Decker Coal Mine is adjacent to the Tongue River Reservoir; there are not any populated areas other than a few ranch home sites. The mine is visible from state highway 314; however, traffic is minimal and Decker Coal actively works to advance reclamation and minimize the surface area under mining.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[Y] See section 10 below.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[Y] The Tongue River Reservoir Recreation Area, livestock production, and coal bed natural gas (CBNG) development are other activities in the vicinity with potential to affect the project. The recreation area and livestock operations are maintained with the current mining. The proposed action allows additional mining; however, all work will occur within the existing permit boundary. No significant impacts to the Tongue River Reservoir Recreation Area are expected. The area of the proposed amendment will temporarily be removed from grazing until mining and reclamation are complete. Both the mine and CBNG are using the coal resource (see groundwater under section 2). The CBNG should not pos a significant impact to the project until restoration of the hydrologic balance is necessary. Additionally

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	the Montana DEQ Water Protection Bureau has addressed CBNG development in an EA for the Tongue River Project proposed by Fidelity Exploration and Production Company.

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11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] Heavy equipment, trucks, loaders, and blasting will create hazards; however, the operator must comply with all MSHA and OSHA regulations. The operator currently utilizes proper precautions to enhance safety and will continue in the best interest of its employees. The proposed operation should not significantly affect human health.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] Historically this surface was pastureland/hay meadow bordered by grazing and rangeland. The final reclamation plan aims to return the area to its previous use with equal to or greater vegetation production than pre-mining.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] The proposal is not expected to create any new jobs; however, if permitted the additional mining should further secure jobs presently in place.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[Y] However, other than additional coal severance tax revenue due to mining of Pit 16, remaining operational tax revenues will not be significantly affected in the region.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] Traffic would not increase and demands on local and state services are projected to remain the same.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[Y] There are multi-resource BLM management plans for the area. Lease agreements between Decker Coal and the BLM for mining of the coal in this area remain current under lease numbers 061685 and 057934-A.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] There are no wilderness areas near or within the project area. The Tongue River Reservoir and state park are adjacent to the mine area; however, no significant impact is expected due to the projected activity. Appendix 312-1, Decker Coal permits, contains Studies of the Tongue River Reservoir. The studies cover vertebrate and invertebrate species along with water quality related to the coalmine effluent. The studies indicate that there would be no significant impacts to the reservoir due to mining on both the southwestern and southeastern shores.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] The project would not significantly affect any populated area. Neither population increase nor residential decrease will be incurred by approving the project.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] Historic cultural references are fully covered under Item 7, Historic and Archeological Sites. There are no known native or traditional lifestyle issues in the area. While there are known to be species of plants with traditional Native American utilization, none of them are unique occurrences.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift	[N]

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in some unique quality of the area?	
21. PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[Y]
22. PRIVATE PROPERTY IMPACTS: Does the proposed regulatory action restrict the use of the regulated persons private property? If not, no further analysis is required.	[N]
23. PRIVATE PROPERTY IMPACTS: Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives.	[N/A]
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

25. Alternatives Considered:

No Action: Under the "No Action" alternative the Department denies approval of the addition of pastureland as the post-mine land use and mining of the additional mine passes. This alternative will not change the permitted acreage, post-mine land uses would not include pastureland, and approximately 3,565,156 tons of coal would not be mined.

Approval: Approval of this action would increase the volume of coal mined by approximately 3,565,156 tons with 9 additional mine passes, pastureland would be added as a post mine land use, and the permitted acreage would remain the same.

Approval with modification: No approvals with modification are proposed.

26. Public Involvement: Public Notice of the Major Revision application was published in the Big Horn County News of Hardin, Montana by Decker Coal Company from December 22, 2005 until January 12, 2006, the four weeks required under ARM 17.24.401(3). Notice of availability of this Environmental Assessment will be published in the Sheridan County Press beginning Friday February 17, 2006, for two consecutive weeks.

27. Other Governmental Agencies with Jurisdiction: The U.S. Bureau of Land Management, which addressed the changes to coal conservation in a letter of January 9, 2006, stating it approved the revision to the Resource Recovery and Protection Plan. Mining development has also been addressed through the BLM planning process.

28. Magnitude and Significance of Potential Impacts: Impacts of the entire operation were analyzed in the June 13, 1977 EIS. Additionally a draft supplement to the Final EIS was made available January 13, 1982 for Pit 16 North extensions to the West Decker Mine area. There would be no significant impacts associated with this expansion.

29. Cumulative Effects: No other new activities have been identified in the area.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Prepared By: Julian Calabrese, Soil Scientist/Reclamation Specialist

Approved By:

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Signature Date